LISTING OF THE CLAIMS:

This listing of claims replaces all prior versions and listings of claims in the application:

1.   (Original) A remote diagnostic unit for use with a heavy vehicle, comprising:

a pin connector communicating with a data bus on the vehicle, the pin connector receiving a signal from the data bus;

5   a microcontroller receiving and interpreting a standard diagnostic message as a function of the signal received by the pin connector; and

a plurality of lights controlled by the microcontroller as a function of the standard diagnostic message.

2.   (Original) The remote diagnostic unit as set forth in claim 1, wherein the microcontroller includes a UART.

3.   (Original) The remote diagnostic unit as set forth in claim 1, further including:

a reset switch, communicating with the microcontroller, for at least one of clearing the diagnostic message from an ECU and causing the ECU to enter a self-

5   configuration mode.

4.   (Original) The remote diagnostic unit as set forth in claim 1, wherein the diagnostic message indicates a status of an ABS ECU on the vehicle.

5.   (Original) The remote diagnostic unit as set forth in claim 1, wherein the data bus is a J1587 serial data bus, further including:

a plurality of the pin connectors for communicating with the J1587 serial data bus.

6.   (Original) The remote diagnostic unit as set forth in claim 1, further including:

a signal conditioner, between the pin connector and the microcontroller, for conditioning the signal received by the pin connector into the standard diagnostic

5   message, which is interpreted by the microcontroller.

7.   (Original) The remote diagnostic unit as set forth in claim 6, wherein the signal conditioner is an RS485 device.

8.   (Original) The remote diagnostic unit as set forth in claim 1, wherein the microcontroller is a PIC16F870 device.

9.   (Original) The remote diagnostic unit as set forth in claim 1, wherein the lights include light emitting diodes.

10.   (Original) A remote diagnostic communication interface for use with a heavy vehicle, comprising:

a pin connector communicating with a data bus on the vehicle, the pin connector receiving a signal from the data bus;

5   means for conditioning the signal and producing a standard diagnostic message as a function of the signal;

means for receiving and interpreting the standard diagnostic message; and

a plurality of lights being selectively illuminated as a function of the standard diagnostic message.

11.   (Original) The remote diagnostic communication interface as set forth in claim 10, wherein the means for conditioning includes an RS485 device.

12.   (Original) The remote diagnostic communication interface as set forth in claim 10, wherein the means for receiving and interpreting the standard diagnostic message includes a UART.

13.   (Original) The remote diagnostic communication interface as set forth in claim 12, wherein the means for receiving and interpreting the standard diagnostic message includes a PIC16F870 device.

14.   (Original) The remote diagnostic communication interface as set forth in claim 10, wherein the pin connector communicates with the data bus via a vehicle connector.

15.   (Original) The remote diagnostic communication interface as set forth in claim 10, further including:

a reset switch, communicating with the means for receiving and interpreting the standard diagnostic message, for at least one of selectively clearing an ECU and selectively causing the ECU to enter a reconfiguration mode.

16.   (Original) The remote diagnostic communication interface as set forth in claim 15, wherein:

the reset switch is activated in response to a magnet;

the ECU is cleared when the reset switch is activated for a first period of time; and

the ECU enters the reconfiguration mode when the reset switch is activated for a second period of time.

17.   (Original) The remote diagnostic communication interface as set forth in claim 10, wherein:

the lights are light emitting diodes; and

the standard diagnostic message indicates a fault status of an associated ECU.

18.   (Original) A system for diagnosing an electrical system on a heavy vehicle, the system including:

an electronic control unit;

a data bus communicating with the electronic control unit; and

5   a remote diagnostic unit, including:

a pin connector;

a microcontroller receiving and interpreting a standard diagnostic

message as a function of the signal received by the pin connector; and

a plurality of lights controlled by the microcontroller as a function of the

10   standard diagnostic message.

19.   (Original) The system for diagnosing an electrical system as set forth in

claim 18, further including:

a reset switch, communicating with the microcontroller, for one of clearing the

diagnostic message from an ECU and transmitting a self-configuration command to the

5   ECU.

20.   (Original) The system for diagnosing an electrical system as set forth in

claim 18, wherein the data bus is a J1587 serial data bus.

21.   (Original) The system for diagnosing an electrical system as set forth in

claim 18, further including:

a vehicle pin connector, communicating with the data bus, which mates with the

pin connector of the remote diagnostic unit.

22.   (Original) The system for diagnosing an electrical system as set forth in

claim 18, wherein the standard diagnostic message indicates a fault status of the

electronic control unit.

23.   (Original) The system for diagnosing an electrical system as set forth in

claim 18, wherein the microcontroller includes a UART.

24.   (Original) The system for diagnosing an electrical system as set forth in

claim 18, wherein the data bus is a J1587 serial data bus.

25.   (Original) A method for remotely displaying a fault status of an
electronic control unit, the method comprising:
        determining the fault status of the electronic control unit;
        transmitting a signal from the electronic control unit to the data bus, the signal
5   indicating a standard message for identifying a fault status of the electronic control unit;
        receiving the signal into a remote diagnostic unit;
        interpreting the signal as the standard message within the remote diagnostic unit;
and
        illuminating selected lights on the remote diagnostic unit as a function of the
10   standard message.

26.   (Original) The method for remotely displaying a fault status as set forth
in claim 25, wherein the interpreting includes:
        conditioning the signal into the standard message; and
        identifying the fault status as a function of the standard message.

27.   (Original) The method for remotely displaying a fault status as set forth
in claim 26, wherein:
        the conditioning includes:
                transforming the signal into the standard message in a circuit including
5   an RS485; and
        the identifying includes:
                identifying the fault status within a UART included within a
microcontroller of the remote diagnostic unit.

28.   (Original) The method for remotely displaying a fault status as set forth
in claim 25, further including:
        activating a reset switch for at least one of clearing the electronic control unit
and causing the electronic control unit to enter a reconfiguration mode.

29.   (Original) The method for remotely displaying a fault status as set forth in claim 28, wherein the reset switch is a magnetic switch, the activating including:

passing a magnet within a range for causing a response in the magnetic switch.